Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 188

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
					Male		
Southern Research Institute	059902703	08/12/02	729	50(3)	37(705)	452.8	Chromium picolinate monohydrate
Battelle Columbus Laboratory	050517405	08/05/02	729	50(3)	33(703)	510.0	Cresols
Southern Research Institute	059900705	04/21/03	729	50(3)	33(679)	460.9	Goldenseal root powder
Southern Research Institute	052000803	03/04/03	729	50(3)	36(704)	452.1	Milk thistle extract
					Female		
Southern Research Institute	059902703	08/12/02	733	50(5)	36(702)	314.7	Chromium picolinate monohydrate
Battelle Columbus Laboratory	050517405	N/A	N/A	0(0)	0(0)	N/A	Cresols
Southern Research Institute	059900705	04/21/03	731	50(5)	30(699)	326.0	Goldenseal root powder
Southern Research Institute	052000803	03/04/03	732	50(5)	38(693)	328.4	Milk thistle extract

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 189

Mean 0%

SD 0%

Report Date: 03/20/2010

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Male **Female** #All Organs: **Benign Tumors** 49/50 (98%)50/50 (100%) 47/50 (94%)45/50 (90%)(92%)50/50 (100%) 39/50 (78%)Overall Incidence Total 196/200 (98%) Mean 98% SD 2.83% Total 130/150 (86.67%) Mean 86.67% SD 7.57% #All Organs: **Malignant Tumors** 27/50 (54%)23/50 (46%)29/50 (58%)15/50 (30%)(38%)26/50 (52%)18/50 (36%)Overall Incidence Total 105/200 (52.5%) Mean 52.5% SD 5% Total 52/150 (34.67%) Mean 34.67% SD 4.16% **#All Organs: Malignant and Benign Tumors** 50/50 (100%) 50/50 (100%) 50/50 (100%) 47/50 (94%)(96%)50/50 (100%) 46/50 (92%)**Overall Incidence** Total 200/200 (100%) Mean 100% SD 0% Total 141/150 (94%) Mean 94% SD 2% **#All Organs:** Hemangioma 0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)(0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% #All Organs: Hemangiosarcoma 2/50 (4%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 2%

Total

0/150 (0%)

Total

2/200 (1%)

Mean 1%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 190

Report Date: 03/20/2010

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

.....

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Male **Female** #All Organs: Hemangiosarcoma or Hemangioma 2/50 (4%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)0/150 (0%) Overall Incidence Total 3/200 (1.5%) Mean 1.5% SD 1.91% Total Mean 0% SD 0% #All Organs: **Histiocytic Sarcoma** (2%) 0/50 (0%)0/50 (0%)0/50 (0%)1/50 1/50 (2%)3/50 (6%)0/50 (0%)Overall Incidence Total 3/200 (1.5%) Mean 1.5% SD 3% Total 2/150 (1.33%) Mean 1.33% SD 1.15% **#All Organs:** Leukemia: Erythrocytic 0/50 (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 1/150 (0.67%) Mean 0.67% SD 1.15% **#All Organs:** Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated 19/50 (38%)15/50 (30%)21/50 (42%)9/50 (18%)9/50 (18%)17/50 (34%)6/50 (12%)**Overall Incidence** Total 72/200 (36%) Mean 36% SD 5.16% Total 24/150 (16%) Mean 16% SD 3.46% **#All Organs:** Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type 0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Control Animal Groups Report Date: 03/20/2010 RAL

Page: 191

			Male				Female	
#All Organs: Mesothelioma: Benign								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
All Organs: Mesothelioma: Benign, Mal	ignant, NOS							
		1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
¢All Organs: Mesothelioma: Malignant								
		1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
¢All Organs: Osteoma								
		0/50 (0%) 1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#All Organs: Osteosarcoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	2/50 (4%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	2/200 (1%)	Mean 1%	SD 2%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 192

Report Date: 03/20/2010

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Male **Female** #All Organs: Osteosarcoma or Osteoma 0/50 (0%)0/50 (0%)2/50 (4%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 3/200 (1.5%) Mean 1.5% SD 1.91% Total 0/150 (0%) Mean 0% SD 0% *Adrenal Cortex: Adenoma 0/50 (0%)0/50 (0%)0/50 (0%)2/50 (4%)1/50 (2%)2/50 (4%)0/48 (0%)Overall Incidence Total 2/200 (1%) Mean 1% SD 2% Total 3/148 (2.03%) Mean 2% SD 2% *Adrenal Cortex: Carcinoma 0/50 (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/48 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/148 (0%) Mean 0% SD 0% *Adrenal Medulla: Ganglioneuroma 0/50 0/48 (0%)0/50 (0%)0/49 (0%)0/50 (0%)(0%)0/50 (0%)0/48 (0%)0/146 (0%) **Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total Mean 0% SD 0% *Adrenal Medulla: Hemangioma 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/48 (0%)0/50 (0%)0/48 (0%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 0/146 (0%) Mean 0% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 193

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Adrenal Medulla: Pheochromocytoma Benign 8/50 (16%)8/50 (16%)5/49 (10%)1/50 (2%)0/48 (0%)5/50 (10%)1/48 (2%)2/146 (1.37%) **Overall Incidence** Total 26/199 (13.07%) Mean 13.05% SD 3.41% Total Mean 1.36% SD 1.18% *Adrenal Medulla: **Pheochromocytoma Complex** 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/48(0%)1/50 (2%)1/48 (2%)Mean 0.5% SD 1.2% **Overall Incidence** Total 1/199 (0.5%) SD 1% Total 1/146 (0.68%) Mean 0.69% *Adrenal Medulla: **Pheochromocytoma Malignant** 3/50 (6%)0/50 1/49 2/50 (4%)0/48 (0%)0/50 (0%)0/48 (0%)**Overall Incidence** Total 4/199 (2.01%) Mean 2.01% SD 2.83% Total 2/146 (1.37%) Mean 1.33% SD 2.31% *Adrenal Medulla: Pheochromocytoma: Benign, Complex, Malignant, NOS 6/49 (12%)3/50 (6%)0/48 (0%)(22%)8/50 (16%)6/50 (12%)2/48 (4%)**Overall Incidence** Total 31/199 (15.58%) Mean 15.56% SD 4.67% Total 5/146 (3.42%) Mean 3.39% SD 3.07% #Bone: Chondrosarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

0/50

0/150 (0%)

Total

(0%)

Mean 0%

SD 0%

Total

0/50

0/200 (0%)

(0%)

.....

Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

ed Control Animal Groups Report Date: 03/20/2010 ORAL

Page: 194

			Male				Female	
#Bone: Chondrosarcoma or Chond	droma							
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Bone: Chordoma								
		0/50 (0%) 0/50 (0%)	1/50 (2%)	1/50 (2%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	2/200 (1%)	Mean 1%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
#Bone: Osteoma								
		0/50 (0%) 1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Bone: Osteosarcoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	2/50 (4%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	2/200 (1%)	Mean 1%	SD 2%	Total	0/150 (0%)	Mean 0%	SD 0%
#Bone: Osteosarcoma or Osteoma								
		0/50 (0%) 1/50 (2%)	0/50 (0%)	2/50 (4%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	3/200 (1.5%)	Mean 1.5%	SD 1.91%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 195

Mean 0%

SD 0%

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Brain: **Astrocytoma Malignant** 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% *Brain: **Ependymoma Benign** 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% Overall Incidence Total 0/199 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% *Brain: **Ependymoma Malignant** 0/50 (0%)0/50 1/49 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/199 (0.5%) Mean 0.51% SD 1.02% Total 0/150 (0%) Mean 0% SD 0% *Brain: **Glioma Malignant** 0/50 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)(0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% *Brain: **Granular Cell Tumor Benign** 2/50 (4%)0/50 (0%)0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 2%

Total

0/150 (0%)

Total

2/199 (1.01%)

.....

Mean 1%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 196

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Brain: Medulloblastoma Mal 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% *Brain: Oligodendroglioma Benign (0%) 0/50 (0%)0/50 (0%)0/49 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% **Overall Incidence** Total 0/199 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% *Brain: Oligodendroglioma Malignant 0/50 (0%)0/50 0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 1/150 (0.67%) Mean 0.67% SD 1.15% *Brain: Oligodendroglioma, Glioma, or Astrocytoma 0/50 (0%)0/50 (0%)0/49 0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 1/150 (0.67%) Mean 0.67% SD 1.15% *Brain: Osteosarcoma 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 197

Mean 0%

SD 0%

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Brain: Schwannoma Malignant 0/50 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/199 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% *Clitoral/Preputial Gland: Adenoma 1/50 (2%)5/50 (10%)0/50 10/50 (20%)5/50 (10%)1/50 (2%)11/50 (22%)Overall Incidence Total 7/200 (3.5%) Mean 3.5% SD 4.43% Total 26/150 (17.33%) Mean 17.33% SD 6.43% *Clitoral/Preputial Gland: Carcinoma 0/50 (0%)0/50 2/50 0/50 (0%)4/50 (8%)2/50 (4%)3/50 (6%)**Overall Incidence** Total 4/200 (2%) Mean 2% SD 2.31% Total 7/150 (4.67%) Mean 4.67% SD 4.16% *Clitoral/Preputial Gland: Carcinoma or Adenoma 1/50 (2%)5/50 (10%)2/50 10/50 (20%)9/50 (18%)3/50 (6%)14/50 (28%)33/150 (22%) **Overall Incidence** Total 11/200 (5.5%) Mean 5.5% SD 3.42% Total Mean 22% SD 5.29% *Clitoral/Preputial Gland: **Fibrosarcoma** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

Total

0/150 (0%)

Total

0/200 (0%)

.....

Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 198

Mean 0%

SD 0%

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Clitoral/Preputial Gland: Sarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Overall Incidence Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Ear: **Neural Crest Tumor** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% Overall Incidence Total 0/200 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% #Esophagus: **Fibrosarcoma** 0/50 (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Esophagus: Lipoma 0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)(0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Eye: Melanoma Malignant 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

Total

0/150 (0%)

Total

0/200 (0%)

.....

Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 199

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** #Eye: Schwannoma Malignant 0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% #Harderian Gland: Carcinoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% Overall Incidence Total 0/200 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% #Harderian Gland: Carcinoma or Adenoma 0/50 (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% *Heart: Schwannoma Benign 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% *Heart: Schwannoma Malignant 1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)1/50 (2%)0/50 (0%)

SD 1.15%

Total

1/150 (0.67%)

Mean 0.67%

SD 1.15%

Total

2/200 (1%)

Mean 1%

^{.....} *: Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

d Control Animal Groups

Report Date: 03/20/2010

PRAL

FEED

Female

Page: 200

			Male				Female	
#Intestine Large: Colon/Re Adenoma	ectum:							
		1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
fintestine Large: Colon/Re Carcinoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Large: Colon/Re Carcinoma or Adenoma	ectum:							
		1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Large: Colon/Re Hemangioma								
_		0/50 (0%) 1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Small: Duodenu Carcinoma								
		1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED Page: 201 Report Date: 03/20/2010

			Male				Female	
#Intestine Small: Duodenum: Leiomyoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Small: Ileum: Adenoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Carcinoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Granular Cell Tumor Malign	ant							
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Leiomyoma								
-		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Page: 202

Mean 0%

SD 0%

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Male **Female** #Intestine Small: Jejunum: Leiomyosarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Intestine Small: Site Unspecified: Adenoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% Overall Incidence Total 0/200 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% #Intestine Small: Site Unspecified: Carcinoma 1/50 (2%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% #Intestine Small: Site Unspecified: Carcinoma or Adenoma 0/50 1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)(0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% #Intestine Small: Site Unspecified: **Granular Cell Tumor Malignant** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

Total

0/150 (0%)

Total

0/200 (0%)

.....

Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 203

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Contract/Lab: All Laboratories

			Male				Female	
#Intestine Small: Site Unspe Leiomyoma	ecified:							
·		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Intestine Small: Site Unspe Leiomyosarcoma	ecified:							
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
*Islets, Pancreatic: Adenoma								
		1/50 (2%) 3/50 (6%)	1/49 (2%)	7/50 (14%)		2/49 (4%) 0/48 (0%)		0/49 (0%)
Overall Incidence	Total	12/199 (6.03%)	Mean 6.01%	SD 5.65%	Total	2/146 (1.37%)	Mean 1.36%	SD 2.36%
*Islets, Pancreatic: Carcinoma								
		1/50 (2%) 1/50 (2%)	1/49 (2%)	0/50 (0%)		0/49 (0%) 0/48 (0%)		0/49 (0%)
Overall Incidence	Total	3/199 (1.51%)	Mean 1.51%	SD 1.01%	Total	0/146 (0%)	Mean 0%	SD 0%
*Islets, Pancreatic: Carcinoma or Adenoma								
		2/50 (4%) 4/50 (8%)	2/49 (4%)	7/50 (14%)		2/49 (4%) 0/48 (0%)		0/49 (0%)
Overall Incidence	Total	15/199 (7.54%)	Mean 7.52%	SD 4.71%	Total	2/146 (1.37%)	Mean 1.36%	SD 2.36%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 204

Report Date: 03/20/2010

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Male **Female** *Kidney: Pelvis and Transitional Epithelium: Carcinoma 0/50 (0%)0/50 (0%)1/50 (2%)0/47 (0%)0/49 (0%)0/48 0/50 (0%)(0%)0/144 (0%) Overall Incidence Total 1/200 (0.5%) Mean 0.5% SD 1% Total Mean 0% SD 0% *Kidney: Pelvis and Transitional Epithelium: Carcinoma or Adenoma 0/50 (0%)0/50 (0%)1/50 (2%)(0%)0/49 (0%)0/50 (0%)0/48 (0%)Overall Incidence Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/144 (0%) Mean 0% SD 0% *Kidney: Pelvis and Transitional Epithelium: **Papilloma** 0/50 (0%)0/50 0/50 (0%)0/47 (0%)0/49 (0%)0/50 (0%)0/48 (0%)Overall Incidence Total 0/200 (0%) Mean 0% SD 0% Total 0/144 (0%) Mean 0% SD 0% *Kidney: Renal Tubule: Adenoma 0/50 0/49 (0%)0/50 (0%)0/50 (0%)0/47 (0%)(0%)0/50 (0%)0/48 (0%)Overall Incidence Total 0/200 (0%) Mean 0% SD 0% Total 0/144 (0%) Mean 0% SD 0% *Kidney: Renal Tubule: Carcinoma 0/50 (0%)0/50 (0%)0/50 (0%)0/47 (0%)0/49 (0%)0/50 (0%)0/48 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/144 (0%) Mean 0% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

*Kidney: Renal Tubule: Carcinoma or Adenoma

*Kidney: Renal Tubule: Hemangiosarcoma

*Kidney: Renal Tubule:

Overall Incidence

Overall Incidence

Overall Incidence

Overall Incidence

Overall Incidence

*Kidney: Renal Tubule:

*Kidney: Renal Tubule:

Mesenchymal Tumor Benign

Mesenchymal Tumor Malignant

Lipoma

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** 0/50 (0%)0/50 (0%)0/50 (0%)0/47 (0%)0/49 (0%)0/50 (0%)0/48 (0%)0/200 (0%) Mean 0% SD 0% Total 0/144 (0%) Mean 0% SD 0% 0/50 (0%)0/50 (0%)0/50 (0%)0/47 (0%)0/49 (0%)0/50 (0%)0/48 (0%)Mean 0% 0/200 (0%) SD 0% Total 0/144 (0%) Mean 0% SD 0% 0/50 (0%)0/50 (0%)0/50 (0%)0/47 (0%)0/49 (0%)0/50 (0%)0/48 (0%)0/200 (0%) Mean 0% SD 0% Total 0/144 (0%) Mean 0% SD 0% 0/50 0/49 (0%)0/50 (0%)0/50 (0%)0/47 (0%)(0%)0/50 (0%)0/48 (0%)0/200 (0%) Mean 0% SD 0% Total 0/144 (0%) Mean 0% SD 0%

Total

0/47

0/48

0/144 (0%)

(0%)

(0%)

Page: 205

Report Date: 03/20/2010

0/49

SD 0%

Mean 0%

(0%)

Total

Total

Total

Total

Total

0/50

0/50

0/200 (0%)

(0%)

(0%)

0/50

Mean 0%

(0%)

0/50

SD 0%

(0%)

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 206

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Kidney: Renal Tubule: Nephroblastoma 0/50 (0%)0/50 (0%)0/50 (0%)0/47 (0%)0/49 (0%)0/48 0/50 (0%)(0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/144 (0%) Mean 0% SD 0% *Kidney: Renal Tubule: Sarcoma 0/50 (0%)0/50 (0%)0/50 (0%)(0%)1/49 (2%)0/50 (0%)0/48 (0%)Mean 0% Overall Incidence Total 0/200 (0%) SD 0% Total 1/144 (0.69%) Mean 0.68% SD 1.18% *Liver: Cholangioma 1/50 (2%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 2/200 (1%) Mean 1% SD 1.15% Total 0/150 (0%) Mean 0% SD 0% *Liver: Hemangiosarcoma 0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)(0%)0/50 (0%)0/50 (0%)0/150 (0%) **Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total Mean 0% SD 0% *Liver: Hepatocellular Adenoma 1/50 (2%)0/50 (0%)1/50 (2%)2/50 (4%)0/50 (0%)3/50 (6%)2/50 (4%)

SD 2.52%

Total

4/150 (2.67%)

Mean 2.67%

SD 2.31%

Total

5/200 (2.5%)

.....

Mean 2.5%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N

III. Walzo io

Contract/Lab: All Laboratories Species: RATS

Length of Study: CHRONIC

Toxicology Data Management System

Page: 207

Mean 0%

SD 0%

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Liver: **Hepatocellular Carcinoma** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/150 (0%) **Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total Mean 0% SD 0% *Liver: Hepatocellular Carcinoma or Hepatoblastoma (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% **Overall Incidence** Total 0/200 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% *Liver: Hepatocellular Carcinoma or Hepatocellular Adenoma (2%)0/50 1/50 2/50 (4%)0/50 (0%)3/50 (6%)2/50 (4%)**Overall Incidence** Total 5/200 (2.5%) Mean 2.5% SD 2.52% Total 4/150 (2.67%) Mean 2.67% SD 2.31% *Liver: Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma 1/50 (2%)0/50 (0%)1/50 (2%)2/50 (4%)0/50 (0%)3/50 (6%)2/50 (4%)**Overall Incidence** Total 5/200 (2.5%) Mean 2.5% SD 2.52% Total 4/150 (2.67%) Mean 2.67% SD 2.31% *Liver: Ito Cell Tumor Benign 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

Total

0/150 (0%)

Total

0/200 (0%)

.....

Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N

Toxicology Data Management System

Page: 208

Report Date: 03/20/2010

SD 0%

Mean 0%

Contract/Lab: All Laboratories

Species: RATS

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

			Male				Female	
*Lung: Alveolar/Bronchiolar Ad	lenoma							
		0/50 (0%) 1/50 (2%)	1/50 (2%)	0/50 (0%)		1/50 (2%) 0/50 (0%)		1/50 (2%)
Overall Incidence	Total	2/200 (1%)	Mean 1%	SD 1.15%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%
Lung: Alveolar/Bronchiolar Ca								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%) 1/50 (2%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
Lung: Alveolar/Bronchiolar Ca	rcinoma or Alv	reolar/Bronchiolar Adeno 0/50 (0%)	ma 1/50 (2%)	1/50 (2%)		1/50 (2%)		1/50 (2%)
		1/50 (2%)	,	,		1/50 (2%)		(,
Overall Incidence	Total	3/200 (1.5%)	Mean 1.5%	SD 1%	Total	3/150 (2%)	Mean 2%	SD 0%
Lung: Fibrosarcoma		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)		0/50 (0%)
		0/50 (0%)	(333)	(***,		0/50 (0%)		(***,
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Lung: Hemangiosarcoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)

SD 0%

Total

0/150 (0%)

Mean 0%

Total

0/200 (0%)

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N

Toxicology Data Management System

Page: 209

Report Date: 03/20/2010

Contract/Lab: All Laboratories

Species: RATS

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Lung: **Squamous Cell Carcinoma** 1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% #Lymph Node: Hemangiosarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% Overall Incidence Total 0/200 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% **#Mammary Gland:** Adenolipoma 0/50 (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Mammary Gland: Adenoma 0/50 2/50 (0%)1/50 (2%)0/50 (0%)1/50 (2%)(4%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 3/150 (2%) Mean 2% SD 2% #Mammary Gland: Carcinoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)4/50 (8%)0/50 (0%)4/50 (8%)

SD 0%

Total

8/150 (5.33%)

Mean 5.33%

SD 4.62%

Total

0/200 (0%)

.....

Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Page: 210

Report Date: 03/20/2010

Species: RATS Strain: F 344/N Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

			Male				Female	
#Mammary Gland: Carcinoma or Adenoma								
		0/50 (0%) 0/50 (0%)	1/50 (2%)	0/50 (0%)		1/50 (2%) 4/50 (8%)		6/50 (12%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	11/150 (7.33%)	Mean 7.33%	SD 5.03%
#Mammary Gland: Fibroadenoma								
		2/50 (4%) 0/50 (0%)	0/50 (0%)	1/50 (2%)		29/50 (58%) 28/50 (56%)		30/50 (60%)
Overall Incidence	Total	3/200 (1.5%)	Mean 1.5%	SD 1.91%	Total	87/150 (58%)	Mean 58%	SD 2%
#Mammary Gland: Fibroma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Mammary Gland: Fibroma, Fibroadenoma o	r Adenoma							
		2/50 (4%) 0/50 (0%)	1/50 (2%)	1/50 (2%)		30/50 (60%) 28/50 (56%)		30/50 (60%)
Overall Incidence	Total	4/200 (2%)	Mean 2%	SD 1.63%	Total	88/150 (58.67%)	Mean 58.67%	SD 2.31%
#Mammary Gland: Fibroma, Fibroadenoma, C								
,	ŕ	2/50 (4%) 0/50 (0%)	1/50 (2%)	1/50 (2%)		30/50 (60%) 28/50 (56%)		31/50 (62%)
Overall Incidence	Total	4/200 (2%)	Mean 2%	SD 1.63%	Total	89/150 (59.33%)	Mean 59.33%	SD 3.06%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 211

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

			Male				Female	
#Mesentery: Fibrous Histiocytoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Mesentery: Hemangiosarcoma		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)		0/50 (00/)
		0/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Mesentery: Lipoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Mesentery: Schwannoma Malignant							•••••	
_		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
'Nose: Adenoma		•••••						
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Page: 212

Report Date: 03/20/2010

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Nose: Chondroma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% 0/150 (0%) **Overall Incidence** Total 0/200 (0%) SD 0% Total Mean 0% SD 0% *Nose: **Squamous Cell Carcinoma** (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% **#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Papilloma Squamous or Papilloma** 1/50 (2%)0/50 1/50 (2%)0/50 (0%)1/50 (2%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 3/200 (1.5%) Mean 1.5% SD 1% Total 1/150 (0.67%) Mean 0.67% SD 1.15% **#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma** (0%)(0%)1/50 (2%)0/50 (0%)0/50 (0%)0/50 0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% **#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva):** Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma 1/50 (2%)0/50 (0%)2/50 (4%)0/50 (0%)1/50 (2%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 4/200 (2%) Mean 2% SD 1.63% Total 1/150 (0.67%) Mean 0.67% SD 1.15%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 213

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female #Oral Mucosa: Squamous Cell Carcinoma** 0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% **#Oral Mucosa: Squamous Cell Papilloma** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)(0%) 0/50 0/50 (0%)Mean 0% **Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) SD 0% *Ovary: Cystadenoma 0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% *Ovary: **Granulosa Cell Tumor Benign** 0/50 0/50 (0%)(0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% *Ovary: **Granulosa Cell Tumor Malignant** 0/50 (0%)0/50 (0%)2/50 (4%)**Overall Incidence** Total 2/150 (1.33%) Mean 1.33% SD 2.31%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Version: Mar2010 Contract/Lab: All Laboratories

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 214

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

			Male				Female	
Ovary: Granulosa Cell Tumor:	Benign, Malign	ant, NOS						
	3 / 3	•				0/50 (0%)		0/50 (0%)
Overall Incidence					Total	2/50 (4%) 2/150 (1.33%)	Mean 1.33%	SD 2.31%
Ovary: Granulosa-Theca Tumo								
	_					1/50 (2%) 0/50 (0%)		0/50 (0%)
Overall Incidence					Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
Ovary: Granulosa-Theca Tumo								
	_					0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
Ovary: Tubulostromal Adenom								•••••
i azaiosti omai Adenon	iu.					0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
Pancreas: Adenoma								
		0/49 (0%) 2/50 (4%)	0/49 (0%)	0/50 (0%)		0/49 (0%) 0/48 (0%)		0/49 (0%)
Overall Incidence	Total	2/198 (1.01%)	Mean 1%	SD 2%	Total	0/146 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 215

Mean 0%

SD 0%

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** *Pancreas: Carcinoma 0/49 (0%)0/49 (0%)0/50 (0%)0/49 (0%)0/49 (0%)0/48 0/50 (0%)(0%)**Overall Incidence** Total 0/198 (0%) Mean 0% SD 0% Total 0/146 (0%) Mean 0% SD 0% *Pancreas: Carcinoma or Adenoma 0/49(0%)0/49 (0%)0/50 (0%)0/49(0%)0/49 (0%)2/50 (4%)0/48 (0%)Overall Incidence Total 2/198 (1.01%) Mean 1% SD 2% Total 0/146 (0%) Mean 0% SD 0% *Pancreas: **Mixed Tumor Benign** 0/49 (0%)0/49 0/50 (0%)0/49 (0%)0/49 (0%)0/50 (0%)0/48 (0%)**Overall Incidence** Total 0/198 (0%) Mean 0% SD 0% Total 0/146 (0%) Mean 0% SD 0% *Pancreas: **Mixed Tumor Malignant** 0/49 (0%)0/49 (0%)1/50 (2%)0/49 (0%)0/49 (0%)0/50 (0%)0/48 (0%)Overall Incidence Total 1/198 (0.51%) Mean 0.5% SD 1% Total 0/146 (0%) Mean 0% SD 0% *Parathyroid Gland: Adenoma 1/45 (2%)1/46 (2%)0/49 (0%)0/48 (0%)0/49 (0%)0/50 (0%)0/49 (0%)

SD 1.27%

Total

0/146 (0%)

Total

2/190 (1.05%)

Mean 1.1%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Page: 216

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

			Male				Female	
*Pituitary Gland: Pars Dist Adenoma	talis or Unspec	cified Site:						
		10/50 (20%) 13/50 (26%)	20/50 (40%)	8/50 (16%)		24/49 (49%) 20/50 (40%)		25/50 (50%)
Overall Incidence	Total	51/200 (25.5%)	Mean 25.5%	SD 10.5%	Total	69/149 (46.31%)	Mean 46.33%	SD 5.5%
*Pituitary Gland: Pars Dist Carcinoma	talis or Unspec	cified Site:						
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		1/49 (2%) 1/50 (2%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	2/149 (1.34%)	Mean 1.35%	SD 1.17%
*Pituitary Gland: Pars Dist Carcinoma or Adenoma		cified Site:						
		10/50 (20%) 13/50 (26%)	20/50 (40%)	8/50 (16%)		25/49 (51%) 21/50 (42%)		25/50 (50%)
Overall Incidence	Total	51/200 (25.5%)	Mean 25.5%	SD 10.5%	Total	71/149 (47.65%)	Mean 47.67%	SD 4.94%
*Pituitary Gland: Pars Dist Ganglioneuroma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/49 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/149 (0%)	Mean 0%	SD 0%
*Pituitary Gland: Pars Inte Adenoma	rmedia:							
		0/50 (0%) 0/50 (0%)	1/50 (2%)	0/50 (0%)		0/49 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/149 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Page: 217

Report Date: 03/20/2010

Species: RATS Strain: F 344/N

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

			Male		Female
*Pituitary Gland: Pars Interm Carcinoma or Adenoma	edia:				
		0/50 (0%) 0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%) 0/50 (0%) 0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5% S	SD 1% Total	0/149 (0%) Mean 0% SD 0%
*Pituitary Gland: Pars Nervo Craniopharyngioma	sa:				
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%) 0/50 (0%) 0/50 (0%)
Overall Incidence	Total	0/200 (0%)	-	SD 0% Total	0/149 (0%) Mean 0% SD 0%
*Prostate: Adenoma					
		0/50 (0%) 0/50 (0%)	0/50 (0%)	1/50 (2%)	
Overall Incidence	Total	1/200 (0.5%)		SD 1%	
*Prostate: Carcinoma or Adenoma					
		0/50 (0%) 0/50 (0%)	0/50 (0%)	1/50 (2%)	
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5% S	SD 1%	
*Salivary Glands: Carcinoma					
		0/50 (0%) 0/48 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%) 0/50 (0%) 0/50 (0%)
Overall Incidence	Total	0/197 (0%)	Mean 0% S	SD 0% Total	0/150 (0%) Mean 0% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL

Vehicle: FEED

Male
Female

Page: 218

Report Date: 03/20/2010

			Male				Female	
*Salivary Glands: Carcinoma or Adenoma								
		0/50 (0%) 0/48 (0%)	0/49 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/197 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
*Salivary Glands: Sarcoma								
		0/50 (0%) 0/48 (0%)	0/49 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/197 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
*Salivary Glands: Schwannoma Malignant								
		0/50 (0%) 0/48 (0%)	0/49 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/197 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Seminal Vesicle: Adenoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)				
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%				
#Skeletal Muscle: Fibrous Histiocytoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 219

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Contract/Lab: All Laboratories

			Male				Female	
#Skeletal Muscle: Hemangiosarcoma								
ū		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skeletal Muscle: Rhabdomyosarcoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skeletal Muscle: Rhabdomyosarcoma or F	Rhabdomyoma	1						
		0/50 (0%) 0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Basal Cell Adenoma								
		1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Basal Cell Adenoma or B								
	•	1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Page: 220

Report Date: 03/20/2010

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Male **Female** #Skin: Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma 1/50 (2%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)1/150 (0.67%) **Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total Mean 0.67% SD 1.15% #Skin: **Basal Cell Carcinoma** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% #Skin: Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS) 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% 0/150 (0%) SD 0% Total Mean 0% #Skin: Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma 1/50 (2%)0/50 0/50 (0%)0/50 (0%)(2%)(0%)1/50 (0%)1/50 (2%)0/50 **Overall Incidence** Total 2/200 (1%) Mean 1% SD 1.15% Total 1/150 (0.67%) Mean 0.67% SD 1.15% #Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma 4/50 (8%)1/50 (2%)2/50 (4%)0/50 (0%)1/50 (2%)(12%)1/50 (2%)6/50 **Overall Incidence** Total 13/200 (6.5%) SD 4.43% 2/150 (1.33%) SD 1.15% Mean 6.5% Total Mean 1.33%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

ed Control Animal Groups

Page: 221

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

			Male				Female	
#Skin: Fibroma								
		4/50 (8%) 3/50 (6%)	1/50 (2%)	5/50 (10%)		0/50 (0%) 1/50 (2%)		1/50 (2%)
Overall Incidence	Total	13/200 (6.5%)	Mean 6.5%	SD 3.42%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%
#Skin:		coma, Myxosarcoma, or Fi					•••••	
ribiolila, ribiosaicolla,	Sarcoma, Myx	4/50 (8%) 4/50 (8%)	4/50 (8%)	5/50 (10%)		0/50 (0%) 1/50 (2%)		3/50 (6%)
Overall Incidence	Total	17/200 (8.5%)	Mean 8.5%	SD 1%	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%
#Skin: Fibrosarcoma				•••••				
		0/50 (0%) 0/50 (0%)	2/50 (4%)	0/50 (0%)		0/50 (0%) 1/50 (2%)		0/50 (0%)
Overall Incidence	Total	2/200 (1%)	Mean 1%	SD 2%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
∜Skin: Fibrosarcoma, Sarcoma	, Myxosarcom	a, or Fibrous Histiocytoma	1					
	-	0/50 (0%) 1/50 (2%)	3/50 (6%)	0/50 (0%)		0/50 (0%) 1/50 (2%)		2/50 (4%)
Overall Incidence	Total	4/200 (2%)	Mean 2%	SD 2.83%	Total	3/150 (2%)	Mean 2%	SD 2%
Skin: Fibrous Histiocytoma								
-		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 222

Mean 0%

SD 0%

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** #Skin: Hemangioma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Skin: Hemangiosarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% Overall Incidence Total 0/200 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% #Skin: Keratoacanthoma 3/50 (6%)1/50 2/50 0/50 (0%)0/50 (0%)4/50 (8%)0/50 (0%)**Overall Incidence** Total 10/200 (5%) Mean 5% SD 2.58% Total 0/150 (0%) Mean 0% SD 0% #Skin: Lipoma 0/50 0/50 (0%)1/50 (2%)1/50 (2%)0/50 (0%)(0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 3/200 (1.5%) Mean 1.5% SD 1% Total 0/150 (0%) Mean 0% SD 0% #Skin: Liposarcoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

Total

0/150 (0%)

Total

0/200 (0%)

.....

Mean 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Report Date: 03/20/2010

Page: 223

Species: RATS Strain: F 344/N Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

			Male				Female	
#Skin: Neural Crest Tumor								
		1/50 (2%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		1/50 (2%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Skin: Neural Crest Tumor, M	lalignant							
		0/50 (0%) 1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Neurofibroma or Schw								2/52 (221)
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Neurofibrosarcoma or	Schwannoma (m	nalignant or NOS)						
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Neurofibrosarcoma, No	eurofibroma, or S	Schwannoma (benign, ma	lignant or NOS)					
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 224

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female** #Skin: Sarcoma 0/50 (0%)1/50 (2%)0/50 (0%)0/50 (0%)2/50 (4%)1/50 (2%)0/50 (0%)2/150 (1.33%) **Overall Incidence** Total 2/200 (1%) Mean 1% SD 1.15% Total Mean 1.33% SD 2.31% #Skin: Schwannoma Benign 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)SD 0% Overall Incidence Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% #Skin: Schwannoma Malignant 0/50 (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Skin: **Squamous Cell Carcinoma** 0/50 (0%)0/50 (0%)0/50 0/50 (0%)0/50 (0%)1/50 (2%)1/50 (2%)**Overall Incidence** Total 1/200 (0.5%) Mean 0.5% SD 1% Total 1/150 (0.67%) Mean 0.67% SD 1.15% Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 0/50 (0%)2/50 (4%)1/50 (2%)**Overall Incidence** Total 2/200 (1%) Mean 1% SD 2% Total 1/150 (0.67%) Mean 0.67% SD 1.15%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 225

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Contract/Lab: All Laboratories

			Male				Female	
#Skin: Squamous Cell Papillon	na							
		0/50 (0%) 1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Skin: Squamous Cell Papillon	na or Papilloma							
,	·	0/50 (0%) 1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
Overall Incidence	Total	3/50 (6%) 6/50 (12%) 12/200 (6%)	1/50 (2%) Mean 6%	2/50 (4%) SD 4.32%	Total	0/50 (0%) 1/50 (2%) 1/150 (0.67%)	Mean 0.67%	0/50 (0%) SD 1.15%
		6/50 (12%) 12/200 (6%) or Keratoacanthoma	Mean 6%	SD 4.32%	Total	1/50 (2%) 1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Skin:		6/50 (12%) 12/200 (6%) or Keratoacanthoma 3/50 (6%) 5/50 (10%)	(,	,	Total	1/50 (2%)	Mean 0.67%	, ,
#Skin: Squamous Cell Papillon	na, Papilloma, o Total	6/50 (12%) 12/200 (6%) or Keratoacanthoma 3/50 (6%)	Mean 6% 1/50 (2%) Mean 5.5%	SD 4.32% 2/50 (4%) SD 3.42%	Total Total	1/50 (2%) 1/150 (0.67%) 0/50 (0%)	Mean 0.67% Mean 0%	SD 1.15%
#Skin: Squamous Cell Papillon Overall Incidence	na, Papilloma, o Total	6/50 (12%) 12/200 (6%) or Keratoacanthoma 3/50 (6%) 5/50 (10%) 11/200 (5.5%)	Mean 6% 1/50 (2%) Mean 5.5%	SD 4.32% 2/50 (4%) SD 3.42%		1/50 (2%) 1/150 (0.67%) 0/50 (0%) 0/50 (0%) 0/150 (0%)		SD 1.15% 0/50 (0%) SD 0%
#Skin: Squamous Cell Papillon Overall Incidence #Skin:	na, Papilloma, o Total	6/50 (12%) 12/200 (6%) or Keratoacanthoma 3/50 (6%) 5/50 (10%) 11/200 (5.5%)	Mean 6% 1/50 (2%) Mean 5.5%	SD 4.32% 2/50 (4%) SD 3.42%		1/50 (2%) 1/150 (0.67%) 0/50 (0%) 0/50 (0%)		SD 1.15% 0/50 (0%)

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 226

Mean 0%

SD 0%

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Male **Female #Skin: Sebaceous Gland:** Adenoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Skin: Sebaceous Gland: Carcinoma or Adenoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)Mean 0% Overall Incidence Total 0/200 (0%) SD 0% Total 0/150 (0%) Mean 0% SD 0% **#Spinal Cord:** Astrocytoma Benign 0/50 (0%)0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% **#Spinal Cord: Astrocytoma Malignant** 0/50 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)(0%)0/50 (0%)0/50 (0%)Overall Incidence Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% **#Spinal Cord:** Glioma Malignant 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)

SD 0%

Total

0/150 (0%)

Total

0/200 (0%)

Mean 0%

Overall Incidence

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Toxicology Data Management System

Page: 227

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC Male **Female** *Spleen: **Fibrosarcoma** 0/50 (0%)0/49 (0%)0/49 (0%)0/50 (0%)0/49 (0%)0/49 0/50 (0%)(0%)**Overall Incidence** Total 0/198 (0%) Mean 0% SD 0% Total 0/148 (0%) Mean 0% SD 0% *Spleen: **Fibrous Histiocytoma** 0/50 (0%)0/49 (0%)1/49 (2%)0/50 (0%)0/49 (0%)0/50 (0%)0/49 (0%)Overall Incidence Total 1/198 (0.51%) Mean 0.51% SD 1.02% Total 0/148 (0%) Mean 0% SD 0% *Spleen: Hemangiosarcoma 1/50 (2%)0/49 0/49 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/49 (0%)**Overall Incidence** Total 1/198 (0.51%) Mean 0.5% SD 1% Total 0/148 (0%) Mean 0% SD 0% *Spleen: Leiomyosarcoma 1/50 (2%)0/49 (0%)0/49 (0%)0/50 (0%)0/49 (0%)0/50 (0%)0/49 (0%)**Overall Incidence** Total 1/198 (0.51%) Mean 0.5% SD 1% Total 0/148 (0%) Mean 0% SD 0% *Spleen: Sarcoma 0/50 (0%)0/49 (0%)0/49 (0%)0/50 (0%)0/49 (0%)

SD 0%

0/49

0/148 (0%)

Total

(0%)

Mean 0%

SD 0%

Total

0/50

0/198 (0%)

(0%)

.....

Mean 0%

Overall Incidence

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N

Toxicology Data Management System

Page: 228

Report Date: 03/20/2010

Contract/Lab: All Laboratories

Species: RATS

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

			Male				Female	
#Stomach, Forestomach: Leiomyosarcoma								
·		0/50 (0%) 0/50 (0%)	1/50 (2%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	0/150 (0%)	Mean 0%	SD 0%
#Stomach, Forestomach: Squamous Cell Carcinoma	1							
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
#Stomach, Forestomach: Squamous Cell Carcinoma	or Papillom	a Squamous 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)		1/50 (2%)
Overall Incidence	Total	0/50 (0%) 0/200 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Stomach, Forestomach: Squamous Cell Papilloma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		1/50 (2%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
#Stomach, Glandular: Carcinoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

......

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Length of Study: CHRONIC

Toxicology Data Management System

Page: 229

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

			Male				Female	
Stomach, Glandular: Carcinoma or Adenoma								0(50 (00))
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
≄Stomach, Glandular: Lipoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
≠Stomach, Glandular: Sarcoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
Testes: Adenoma								
		46/50 (92%) 46/50 (92%)	49/50 (98%)	42/50 (84%)				
Overall Incidence	Total	183/200 (91.5%)	Mean 91.5%	SD 5.74%				
Testes: Hemangioma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)				
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%				

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Page: 230

Report Date: 03/20/2010

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

			Male				Female	
Thymus: Thymoma Benign		0/40 (00/)	0/47 (00/)	4/40 (00%)		0/40 /00/)		0/40 (00)
		0/48 (0%) 0/41 (0%)	0/47 (0%)	1/48 (2%)		0/46 (0%) 0/50 (0%)		0/49 (0%)
Overall Incidence	Total	1/184 (0.54%)	Mean 0.52%	SD 1.04%	Total	0/145 (0%)	Mean 0%	SD 0%
Thymus: Thymoma Malignant								
		0/48 (0%) 0/41 (0%)	0/47 (0%)	0/48 (0%)		0/46 (0%) 0/50 (0%)		0/49 (0%)
Overall Incidence	Total	0/184 (0%)	Mean 0%	SD 0%	Total	0/145 (0%)	Mean 0%	SD 0%
Thymus: Thymoma NOS		0/48 (0%)	0/47 (0%)	0/48 (0%)		0/46 (0%)		0/49 (0%)
		0/40 (0%)	0/47 (070)	0/40 (070)		0/50 (0%)		0/40 (070)
Overall Incidence	Total	0/184 (0%)	Mean 0%	SD 0%	Total	0/145 (0%)	Mean 0%	SD 0%
Thymus: Thymoma: Benign, Mal	ignant. NOS							•••••
<i>y</i>	,	0/48 (0%) 0/41 (0%)	0/47 (0%)	1/48 (2%)		0/46 (0%) 0/50 (0%)		0/49 (0%)
Overall Incidence	Total	1/184 (0.54%)	Mean 0.52%	SD 1.04%	Total	0/145 (0%)	Mean 0%	SD 0%
Thyroid Gland: C-Cell: Adenoma								
		5/50 (10%) 5/48 (10%)	6/50 (12%)	7/50 (14%)		3/49 (6%) 2/47 (4%)		4/50 (8%)
Overall Incidence	Total	23/198 (11.62%)	Mean 11.6%	SD 1.81%	Total	9/146 (6.16%)	Mean 6.13%	SD 1.87%

______ *: Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Route: ORAL Vehicle: FEED

Tumor Incidence for Selected Control Animal Groups Report Date: 03/20/2010

Page: 231

			Male				Female	
Thyroid Gland: C-Cell: Carcinoma								
		4/50 (8%) 1/48 (2%)	1/50 (2%)	1/50 (2%)		1/49 (2%) 0/47 (0%)		1/50 (2%)
Overall Incidence	Total	7/198 (3.54%)	Mean 3.52%	SD 2.99%	Total	2/146 (1.37%)	Mean 1.35%	SD 1.17%
Thyroid Gland: C-Cell: Carcinoma or Adenoma								
		9/50 (18%) 6/48 (13%)	7/50 (14%)	8/50 (16%)		4/49 (8%) 2/47 (4%)		5/50 (10%)
Overall Incidence	Total	30/198 (15.15%)	Mean 15.12%	SD 2.39%	Total	11/146 (7.53%)	Mean 7.47%	SD 2.93%
Thyroid Gland: Follicular Cell Adenoma	:							
		2/50 (4%) 0/48 (0%)	0/50 (0%)	0/50 (0%)		0/49 (0%) 0/47 (0%)		0/50 (0%)
Overall Incidence	Total	2/198 (1.01%)	Mean 1%	SD 2%	Total	0/146 (0%)	Mean 0%	SD 0%
Thyroid Gland: Follicular Cell Carcinoma	:							
		0/50 (0%) 0/48 (0%)	0/50 (0%)	0/50 (0%)		0/49 (0%) 1/47 (2%)		0/50 (0%)
Overall Incidence	Total	0/198 (0%)	Mean 0%	SD 0%	Total	1/146 (0.68%)	Mean 0.71%	SD 1.23%
Thyroid Gland: Follicular Cell Carcinoma or Adenoma								
		2/50 (4%) 0/48 (0%)	0/50 (0%)	0/50 (0%)		0/49 (0%) 1/47 (2%)		0/50 (0%)
Overall Incidence	Total	2/198 (1.01%)	Mean 1%	SD 2%	Total	1/146 (0.68%)	Mean 0.71%	SD 1.23%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Page: 232

Report Date: 03/20/2010

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: FEED

Male **Female #Tissue NOS:** Lipoma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% **#Tissue NOS:** Paraganglioma 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)1/50 (2%)0/50 (0%)Mean 0.5% Overall Incidence Total 1/200 (0.5%) SD 1% Total 0/150 (0%) Mean 0% SD 0% #Tongue: **Squamous Cell Carcinoma** 0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/200 (0%) Mean 0% SD 0% Total 0/150 (0%) Mean 0% SD 0% #Tongue: Squamous Cell Carcinoma or Papilloma Squamous (2%)0/50 (0%)1/50 (2%)0/50 (0%)1/50 (2%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 3/200 (1.5%) Mean 1.5% SD 1% Total 1/150 (0.67%) Mean 0.67% SD 1.15% #Tongue: Squamous Cell Papilloma 1/50 (2%)0/50 (0%)1/50 (2%)0/50 (0%)1/50 (2%)1/50 (2%)0/50 (0%)

SD 1%

Total

1/150 (0.67%)

Mean 0.67%

SD 1.15%

Total

3/200 (1.5%)

.....

Mean 1.5%

Overall Incidence

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 233

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

			Male				Female	
Tooth: Adamantinoma Malignant		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)		0/50 (0%)
		0/50 (0%)	,	,		0/50 (0%)		,
verall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
ooth: Odontoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
verall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
rinary Bladder: Carcinoma or Papilloma		0/50 (0%)	1/49 (2%)	0/50 (0%)		0/50 (0%)		0/50 (0%)
		0/50 (0%)				0/50 (0%)		
verall Incidence	Total	1/199 (0.5%)	Mean 0.51%	SD 1.02%	Total	0/150 (0%)	Mean 0%	SD 0%
rinary Bladder: Hemangiosarcoma								
		0/50 (0%) 0/50 (0%)	0/49 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
verall Incidence	Total	0/199 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
rinary Bladder: Leiomyosarcoma			•••••					
		0/50 (0%) 0/50 (0%)	0/49 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
verall Incidence	Total	0/199 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 234

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female** *Urinary Bladder: **Papilloma** 0/50 (0%)1/49 (2%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 1/199 (0.5%) Mean 0.51% SD 1.02% Total 0/150 (0%) Mean 0% SD 0% #Uterus: Adenoma 0/50 (0%)0/50 (0%)1/50 (2%)**Overall Incidence** Total 1/150 (0.67%) Mean 0.67% SD 1.15% #Uterus: Carcinoma 0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% #Uterus: Deciduoma Benign 0/50 0/50 (0%)(0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% #Uterus: Hemangioma 0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 235

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male **Female #Uterus:** Hemangiosarcoma 0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% **#Uterus:** Leiomyosarcoma 0/50 (0%)1/50 (2%)0/50 (0%)**Overall Incidence** Total 1/150 (0.67%) Mean 0.67% SD 1.15% **#Uterus: Polyp Stromal** 10/50 (20%)(28%)10/50 (20%)**Overall Incidence** Total 34/150 (22.67%) Mean 22.67% SD 4.62% #Uterus: Sarcoma 0/50 0/50 (0%)(0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0% **#Uterus:** Sarcoma Stromal 0/50 (0%)0/50 (0%)0/50 (0%)**Overall Incidence** Total 0/150 (0%) Mean 0% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Version: Mar2010 Contract/Lab: All Laboratories

Species: RATS

Strain: F 344/N

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 236

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

Length of Study: CHRONIC

			Male				Female	
#Uterus:	lun Stromol							
Sarcoma Stromal or Po	nyp Stromai					10/50 (20%)		14/50 (28%)
						10/50 (20%)		14700 (2070)
Overall Incidence					Total	34/150 (22.67%)	Mean 22.67%	SD 4.62%
Uterus: Schwannoma Malignan								
	•					0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
Vagina: Polyp								
,,						0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
Vagina:								
Sarcoma						0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence					Total	0/150 (0%)	Mean 0%	SD 0%
Zymbal's Gland: Adenoma								
		0/50 (0%) 0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%) 0/50 (0%)		0/50 (0%)
Overall Incidence	Total	0/200 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N

Contract/Lab: All Laboratories Species: RATS

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Page: 237

Report Date: 03/20/2010

Route: ORAL Vehicle: FEED

-	Male					Female			
#Zymbal's Gland: Carcinoma									
		0/50 (0%) 0/50 (0%)	1/50 (2%)	0/50 (0%)		1/50 (2%) 0/50 (0%)		0/50 (0%)	
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
#Zymbal's Gland: Carcinoma or Adenoma									
		0/50 (0%) 0/50 (0%)	1/50 (2%)	0/50 (0%)		1/50 (2%) 0/50 (0%)		0/50 (0%)	
Overall Incidence	Total	1/200 (0.5%)	Mean 0.5%	SD 1%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	

^{.....} *: Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied